

sequence hybridizable with a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 1,

(b) a nucleotide sequence as depicted in SEQ ID NO: 2,

(c) a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 3,

① 2
(d) a nucleotide sequence depicted by the 236th to 2584th nucleotides in the nucleotide sequence as depicted in SEQ ID NO: 4,

(e) a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 5,

(f) the nucleotide sequence depicted by the 134th to 2467th nucleotides in the nucleotide sequence as depicted in SEQ ID NO: 6,

(g) a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 7,

under conditions equivalent to 42°C to 68°C in a buffer comprising 0.9M NaCl 0.09M citric acid, and encoding a protein that binds a D-galactosyl group through the α (1 \rightarrow 6) bond to the hydroxyl group attached to the carbon atom at 6-position of the D-glucose residue in a sucrose molecule to form raffinose.

2. (Twice Amended) An isolated nucleic acid comprising a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 1.

3. (Twice Amended) An isolated nucleic acid comprising the nucleotide sequence as depicted in SEQ ID NO: 2.

①²
4. (Twice Amended) An isolated nucleic acid comprising a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 3.

5. (Twice Amended) An isolated nucleic acid comprising the nucleotide sequence depicted by the 236th to 2584th nucleotides in the nucleotide sequence as depicted in SEQ ID NO: 4.

6. (Twice Amended) An isolated nucleic acid comprising a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 5.

7. (Twice Amended) An isolated nucleic acid comprising the nucleotide sequence depicted by the 134th to

2467th nucleotides in the nucleotide sequence as depicted in SEQ ID NO: 6.

8. (Twice Amended) An isolated nucleic acid comprising a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 7.

9. (Twice Amended) An isolated nucleic acid comprising the nucleotide sequence depicted by the 1st to 1719th nucleotides in the nucleotide sequence as depicted in SEQ ID NO: 8.

10. (Twice Amended) An isolated nucleic acid comprising the nucleotide sequence as depicted in SEQ ID NO: 4, SEQ ID NO: 6, or SEQ ID NO: 8.

17. (Twice Amended) A vector comprising the nucleic acid of claim 1.

18. (Twice Amended) A transformant, wherein the nucleic acid of claim 1 is introduced into a host cell.

23. (Twice Amended) A method for producing a raffinose synthase which comprises the steps of:

culturing or growing the transformant of claim 18 to produce the raffinose synthase, and
collecting the raffinose synthase.

30. (Amended) The isolated nucleic acid which comprises a polynucleotide derived from a plant selected from the group consisting of soybean, *Chenopdiaceae* plants and *Cruciferea* plants, said polynucleotide having a nucleotide sequence hybridizable with a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 1,

(b) a nucleotide sequence as depicted in SEQ ID NO: 2,

(c) a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 3,

(d) a nucleotide sequence depicted by the 236th to 2584th nucleotides in the nucleotide sequence as depicted in SEQ ID NO: 4,

(e) a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 5,

(f) the nucleotide sequence depicted by the 134th to 2467th nucleotides in the nucleotide sequence as depicted in SEQ ID NO: 6, and

D⁵ (g) a nucleotide sequence encoding the amino acid sequence as depicted in SEQ ID NO: 7,

under conditions equivalent to 65°C to 68°C in a buffer comprising 0.9M NaCl 0.09M citric acid, and encoding a protein that binds a D-galactosyl group through the α (1→6) bond to the hydroxyl group attached to the carbon atom at 6-position of the D-glucose residue in a sucrose molecule to form raffinose.
